

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: LUMARK

Report Number: P883767

Luminaire Tested: **NAV-SB4B-735-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883767  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-735-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22612 lumens  
Efficiency: N/A  
Efficacy: 153.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

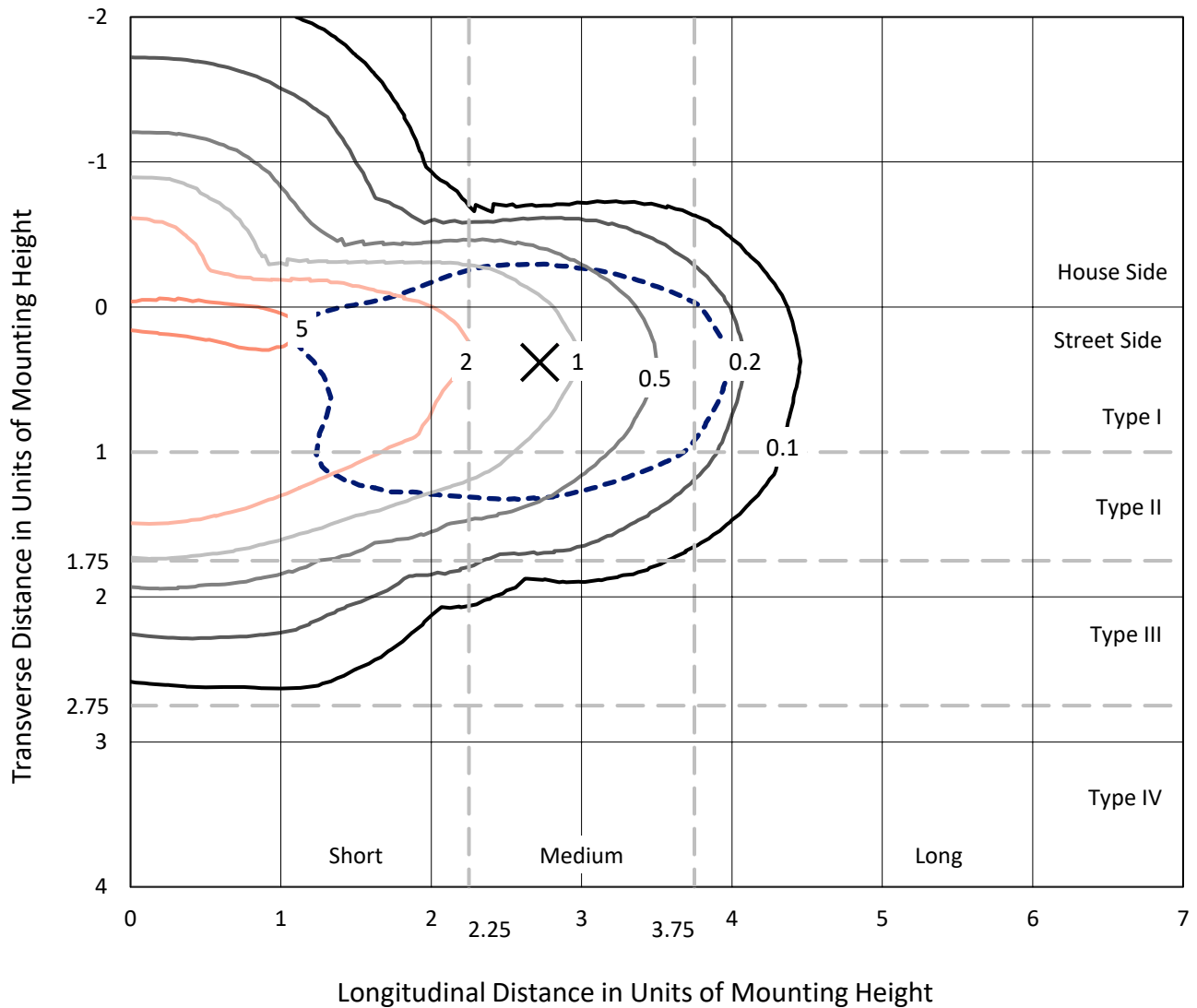
Input Watts (W): 147  
Input Voltage (V): 120.0  
Input Current (Ain): 1.255  
Voltage Rise (V): NR  
Power Factor: 0.988  
Total Harmonic Distortion (THDi): 13.593  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

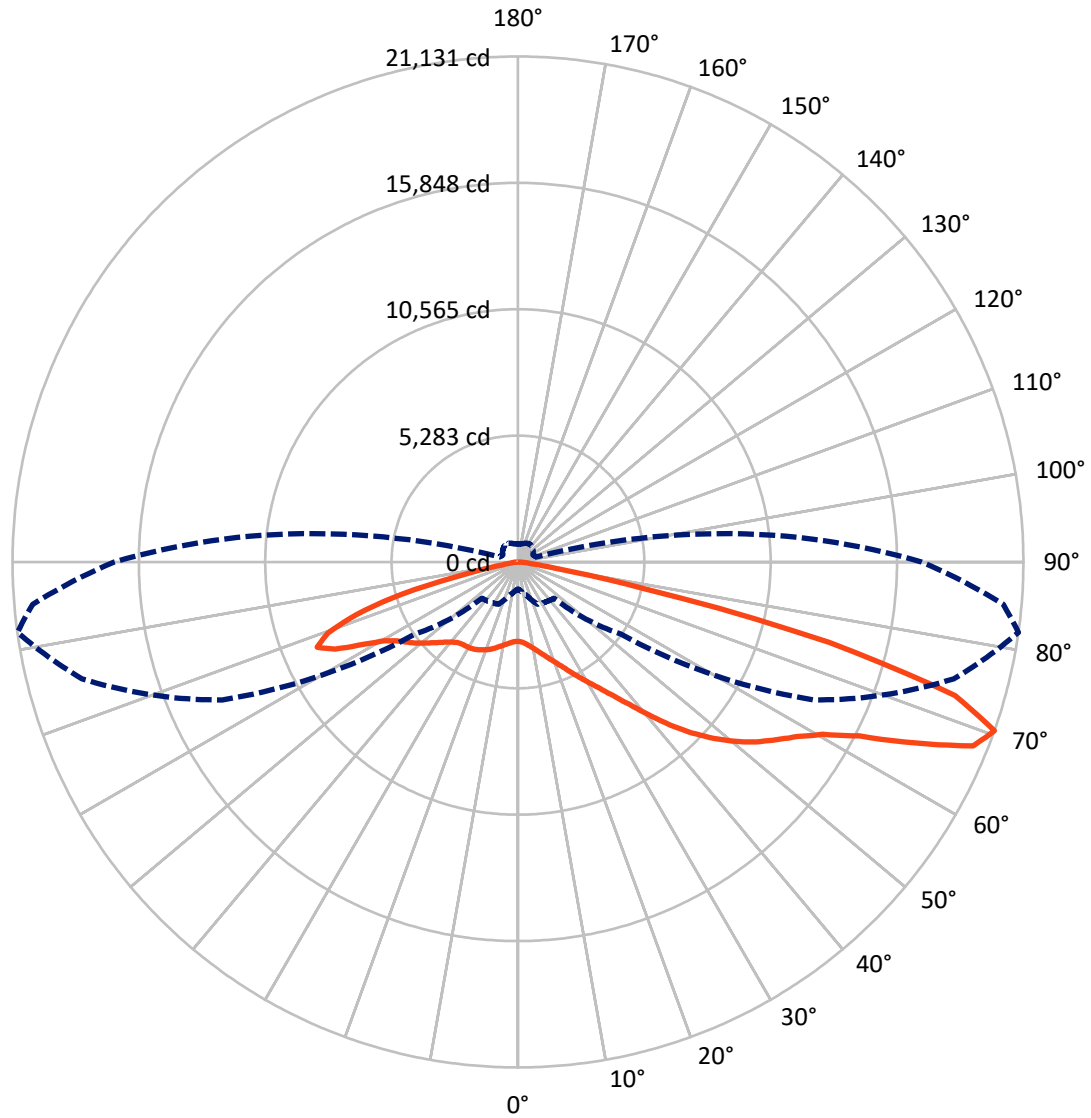
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc  
 Type II - Medium - N/A

REPORT NUMBER: P883767  
CATALOG NUMBER: NAV-SB4B-735-U-T2

### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5574.4	0.0	5574.4
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	17037.6	0.0	17037.6
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	22612.0	0.0	22612.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	313.0	1.4
10°-20°	899.3	4.0
20°-30°	1504.4	6.7
30°-40°	2350.3	10.4
40°-50°	3743.2	16.6
50°-60°	5209.1	23.0
60°-70°	5449.0	24.1
70°-80°	2847.9	12.6
80°-90°	295.7	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	22612.0	100.0
0°-180°	22612.0	100.0

**Coefficient of Utilization**



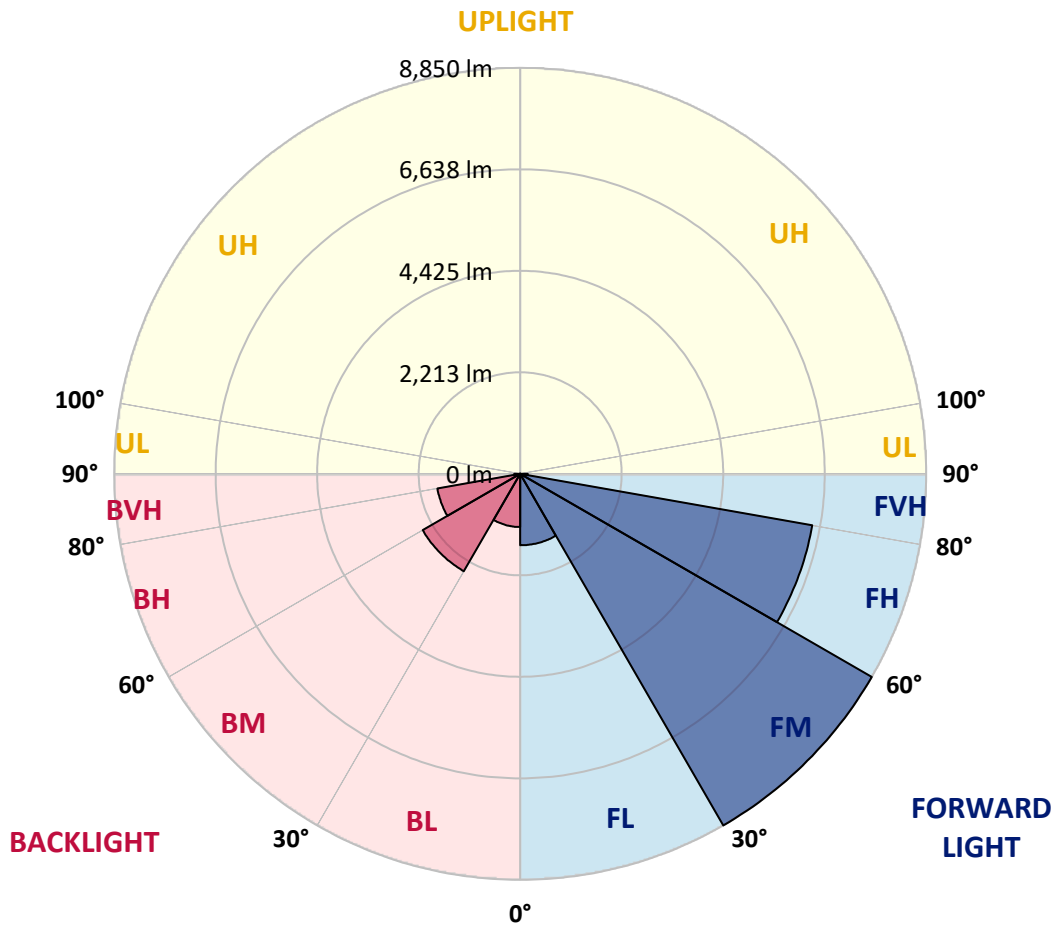
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 CATALOG NUMBER: NAV-SB4B-735-U-T2

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1557.1	6.9			
FM (30°-60°)	8850.1	39.1			
FH (60°-80°)	6464.8	28.6			G3/7500
FVH (80°-90°)	165.6	0.7			G2/225
BL (0°-30°)	1159.7	5.1	B3/2500		
BM (30°-60°)	2452.5	10.8	B2/2500		
BH (60°-80°)	1832.0	8.1	B3/2500		G3/2500
BVH (80°-90°)	130.2	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Medium



REPORT NUMBER: P883767

CATALOG NUMBER: NAV-SB4B-735-U-T2

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3315.2	3315.2	3315.2	3315.2	3315.2	3315.2	3315.2	3315.2	3315.2	3315.2	3315.2
2.5°	3394.4	3413.6	3407.6	3401.6	3401.6	3393.2	3392.0	3380.0	3370.4	3354.8	3351.2
5°	3437.6	3458.0	3455.6	3460.4	3476.0	3479.6	3483.2	3476.0	3456.8	3437.6	3429.2
7.5°	3399.2	3422.0	3429.2	3458.0	3506.0	3549.2	3581.6	3594.8	3576.8	3549.2	3536.0
10°	3269.6	3294.8	3320.0	3388.4	3473.6	3575.6	3662.0	3713.6	3710.0	3683.6	3660.8
12.5°	3006.8	3033.2	3087.2	3220.4	3376.4	3556.4	3717.2	3825.1	3862.3	3843.1	3803.5
15°	2796.9	2819.7	2860.5	2997.2	3200.0	3473.6	3737.6	3947.5	4042.3	4031.5	3983.5
17.5°	2790.9	2800.5	2825.7	2890.5	3046.4	3344.0	3716.0	4067.5	4248.7	4247.5	4187.5
20°	2896.5	2900.1	2914.5	2927.6	3016.4	3245.6	3660.8	4167.1	4480.3	4480.3	4415.5
22.5°	3042.8	3040.4	3054.8	3042.8	3086.0	3237.2	3626.0	4254.7	4738.2	4757.4	4675.8
25°	3262.4	3250.4	3246.8	3219.2	3227.6	3315.2	3664.4	4354.3	5044.2	5083.8	4981.8
27.5°	3555.2	3536.0	3522.8	3459.2	3437.6	3476.0	3781.9	4474.3	5385.0	5453.3	5323.8
30°	3936.7	3901.9	3882.7	3772.3	3694.4	3700.4	3959.5	4633.8	5741.3	5851.7	5687.3
32.5°	4457.5	4403.5	4351.9	4170.7	4027.9	3981.1	4188.7	4854.6	6127.7	6304.0	6092.9
35°	5040.6	4997.4	4942.2	4662.6	4443.1	4335.1	4498.3	5163.0	6580.0	6859.6	6584.8
37.5°	5602.1	5564.9	5591.3	5214.6	4931.4	4774.2	4903.8	5576.9	7137.9	7550.7	7201.5
40°	6182.9	6154.1	6157.7	5797.7	5467.7	5291.4	5395.8	6096.5	7777.5	8372.6	7943.0
42.5°	6814.0	6792.4	6720.4	6401.2	6030.5	5866.1	5962.1	6696.4	8463.8	9308.5	8756.5
45°	7520.7	7507.5	7440.3	7074.4	6649.6	6464.8	6594.4	7358.7	9153.7	10189.2	9573.7
47.5°	8131.4	8142.2	8133.8	7825.5	7385.1	7113.9	7268.7	8049.8	9795.6	11017.1	10357.2
50°	8425.4	8481.8	8564.6	8468.6	8195.0	7919.0	7949.0	8717.0	10407.6	11793.4	11108.3
52.5°	8271.8	8378.6	8604.2	8757.7	8863.3	8805.7	8725.4	9379.3	10983.5	12494.1	11818.6
55°	7699.5	7849.5	8223.8	8594.6	9133.3	9552.1	9657.6	10113.6	11545.0	13110.8	12490.5
57.5°	6656.8	6900.4	7236.3	7986.2	8893.3	9913.2	10744.7	11132.3	12140.1	13769.5	13193.6
60°	4869.0	5195.4	5612.9	6728.8	8053.4	9720.0	11669.8	12696.9	12986.0	14622.6	14109.1
62.5°	3116.0	3317.6	3701.6	4752.6	6275.2	8730.2	11953.0	14652.6	14419.9	16021.7	15481.7
65°	2133.3	2262.9	2614.5	3204.8	4056.7	6498.4	11194.7	16118.9	16697.2	18239.0	17828.7
67.5°	1550.2	1648.6	1948.6	2465.7	2643.3	3845.5	8687.0	16051.7	18910.9	20523.5	19885.2
70°	1130.3	1199.9	1451.8	1948.6	2033.8	2139.3	5262.6	13644.8	18862.9	21130.7	20366.4
72.5°	837.5	885.5	1054.7	1511.8	1646.2	1444.6	2604.9	9916.8	16208.9	19112.5	18499.4
75°	605.9	641.9	766.7	1156.7	1317.4	1100.3	1299.4	5795.3	11306.2	13444.4	13552.4
77.5°	463.1	490.7	572.3	847.1	1054.7	825.5	806.3	2666.1	5361.0	5387.4	5689.7
80°	372.0	390.0	434.3	596.3	808.7	617.9	525.5	1076.3	1694.2	1433.8	1504.6
82.5°	273.6	303.6	367.2	418.7	578.3	425.9	320.4	543.5	644.3	554.3	559.1
85°	156.0	176.4	222.0	300.0	369.6	260.4	183.6	241.2	300.0	246.0	219.6
87.5°	55.2	72.0	78.0	117.6	160.8	108.0	70.8	69.6	98.4	73.2	61.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3315.2	3315.2	3315.2	3315.2	3315.2	3315.2	3315.2	3315.2	3315.2	3315.2	3315.2
2.5°	3339.2	3333.2	3309.2	3276.8	3243.2	3210.8	3200.0	3177.2	3161.6	3153.2	3162.8
5°	3406.4	3387.2	3330.8	3258.8	3183.2	3101.6	3044.0	2991.2	2952.8	2916.8	2931.2
7.5°	3502.4	3468.8	3371.6	3245.6	3111.2	2975.6	2874.9	2798.1	2746.5	2712.9	2720.1
10°	3614.0	3562.4	3413.6	3225.2	3017.6	2823.3	2704.5	2638.5	2606.1	2588.1	2592.9
12.5°	3742.4	3669.2	3456.8	3178.4	2874.9	2652.9	2571.3	2552.1	2553.3	2554.5	2556.9
15°	3900.7	3798.7	3491.6	3076.4	2688.9	2522.1	2507.7	2538.9	2571.3	2586.9	2585.7
17.5°	4079.5	3935.5	3497.6	2908.5	2506.5	2438.1	2483.7	2550.9	2600.1	2621.7	2626.5
20°	4271.5	4074.7	3454.4	2670.9	2356.5	2369.7	2451.3	2537.7	2591.7	2619.3	2626.5
22.5°	4491.1	4223.5	3351.2	2421.3	2234.1	2295.3	2391.3	2475.3	2531.7	2559.3	2566.5
25°	4741.8	4390.3	3189.2	2211.3	2128.5	2211.3	2307.3	2376.9	2422.5	2447.7	2454.9
27.5°	5020.2	4564.3	2973.2	2044.6	2036.2	2124.9	2204.1	2258.1	2282.1	2301.3	2308.5
30°	5299.8	4722.6	2711.7	1918.6	1955.8	2039.8	2096.1	2120.1	2127.3	2130.9	2139.3
32.5°	5602.1	4859.4	2436.9	1814.2	1879.0	1957.0	1990.6	2001.4	1967.8	1945.0	1952.2
35°	5968.1	5005.8	2168.1	1731.4	1803.4	1870.6	1881.4	1871.8	1832.2	1785.4	1787.8
37.5°	6420.4	5188.2	1953.4	1672.6	1732.6	1777.0	1763.8	1761.4	1765.0	1709.8	1713.4
40°	6974.8	5425.7	1796.2	1627.0	1675.0	1684.6	1647.4	1667.8	1685.8	1601.8	1604.2
42.5°	7590.3	5712.5	1696.6	1595.8	1627.0	1604.2	1546.6	1569.4	1567.0	1456.6	1455.4
45°	8217.8	6024.5	1661.8	1573.0	1582.6	1537.0	1473.4	1479.4	1429.0	1329.4	1333.0
47.5°	8841.7	6359.2	1683.4	1553.8	1527.4	1475.8	1426.6	1400.2	1325.8	1251.4	1251.4
50°	9453.7	6710.8	1762.6	1515.4	1451.8	1421.8	1385.8	1339.0	1259.8	1196.3	1191.5
52.5°	10021.2	7064.8	1851.4	1451.8	1357.0	1375.0	1352.2	1298.2	1220.3	1155.5	1156.7
55°	10558.7	7418.7	1886.2	1364.2	1268.2	1334.2	1321.0	1221.5	1127.9	1075.1	1070.3
57.5°	11144.3	7844.7	1847.8	1252.6	1196.3	1287.4	1237.1	1126.7	1072.7	1033.1	1029.5
60°	11955.4	8513.0	1765.0	1114.7	1127.9	1217.9	1131.5	1085.9	1027.1	982.7	980.3
62.5°	13302.8	9759.6	1631.8	977.9	1047.5	1114.7	1081.1	1035.5	975.5	932.3	932.3
65°	15294.6	11492.2	1381.0	871.1	957.5	1013.9	1027.1	981.5	919.1	873.5	875.9
67.5°	16974.4	12579.3	1045.1	782.3	865.1	932.3	969.5	925.1	859.1	814.7	815.9
70°	16882.0	11789.8	797.9	694.7	783.5	851.9	899.9	865.1	794.3	752.3	755.9
72.5°	14994.6	9862.8	645.5	605.9	700.7	767.9	825.5	799.1	727.1	686.3	686.3
75°	11015.9	7001.2	515.9	515.9	597.5	680.3	743.9	727.1	661.1	632.3	623.9
77.5°	4643.4	2937.2	404.4	428.3	496.7	584.3	663.5	669.5	611.9	647.9	587.9
80°	1234.7	809.9	308.4	337.2	390.0	482.3	577.1	574.7	512.3	478.7	445.1
82.5°	470.3	319.2	219.6	237.6	282.0	369.6	457.1	471.5	409.2	354.0	354.0
85°	181.2	136.8	135.6	142.8	164.4	244.8	345.6	357.6	308.4	261.6	270.0
87.5°	46.8	40.8	50.4	48.0	75.6	130.8	198.0	205.2	188.4	109.2	156.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)